CONCLUDING REPORT ON THE LATE CAPT. BOTTEGO'S COLLECTION OF REPTILES AND BATRACHIANS FROM SOMALILAND AND BRITISH EAST AFRICA BY G. A. BOULENGER F. R. S.

(Plates IX, X).

Since the publication of the second Report ⁽¹⁾ on the Reptiles and Batrachians of the Bottego Expedition, the death of whose leader we have to deplore, the Genoa Museum has received another series of specimens collected farther to the West and which have been brought home by the Captain's companions, Lieuts. Vannutelli and Citerni, together with some obtained at Lugh, Southern Somaliland, by Capt. Ferrandi. All of these are enumerated in the following list. For information on the localities, and on the route followed by the expedition we must refer the reader to the account and map in Boll. Soc. Geogr. Ital. (3) X, 1897, p. 320.

Since I drew up a list of the Reptiles and Batrachians of Somaliland and Gallaland in the "Annali" of the Genoa Museum in 1897 a little contribution has appeared, in the first volume of the Zoological series of the Field Columbian Museum Publication, 1897, entitled "List of Fishes and Reptiles obtained by Field Columbian Museum East Africa Expedition to Somaliland in 1896" by S. E. Meek, which its author will, I am sure, sincerely regret when he has acquired some acquaintance

(1) Cfr. these "Annali " (2) XVII, 1896, p. 5.

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with the subject with which he has unfortunately been induced to deal. The new species so rashly established appear to me to be identifiable as follows:

Phrynobatrachus hailiensis = Rana mascareniensis, juv. Bufo garmani = B. regularis, juv. Bufo viridis somalacus = B. blanfordii. Lyogsoma (sic) akeleyi = Chalcides ocellatus.

Rhampholeon mandera is too badly described to be recognised, but I have a strong suspicion it is founded on a specimen of the well-known *R. kerstenii*. There is probably some lapsus in the table of measurements given, as a Chameleon with the arm nearly as long as the body seems almost an impossibility.

The Fishes are not treated with more discrimination. The new species *Pterois ellioti* is based on a specimen of *Pterois antennata*. Under the name *Epinephelus tauvina* the author evidently mixes up specimens of two perfectly distinct species, viz. *E. tauvina* (no. 495) and *E. stoliczkae* (nos. 496-499).

REPTILIA.

Chelonia.

1. Cinixys belliana, Gray. - Between Badditù and Dimè.

Lacertilia.

2. Pristurus crucifer, Val. - Lugh.

3. Hemidactylus isolepis, Blgr. - Lugh.

4. Hemidactylus mabouia, Mor. - Lugh.

5. Hemidactylus brookii, Gray. - Lugh.

6. Hemidactylus ruspolii, Blgr. - Lugh.

7. Hemidactylus macropholis, Blgr. - Lugh.

8. Lygodactylus capensis, Smith. — Lugh; between Badditù and Dimè.

9. Holodactylus africanus, Bttgr. - Lugh.

10. Agama bottegi, sp. n. (Pl. IX, fig. 1). - Head moderate, convex. Nostril tubular, directed upwards and backwards, pierced in the posterior part of a small nasal on the canthus rostralis. Upper head-scales smooth; occipital enlarged; sides of head near the ear, and neck with groups of spines the longest of which measure two thirds the diameter of the ear-opening; latter large, entirely exposed, larger than the eve-opening; no regular gular pouch. Body scarcely depressed, covered above with large, strongly keeled, strongly mucronate, imbricate scales converging towards the vertebral line; a strong nuchal crest, the lobes of which equal the diameter of the ear-opening, and a low crest extending along the back and tail; ventral scales keeled; 53 scales round the middle of the body. Limbs strong; tibia as long as the skull; third and fourth fingers equal; fourth toe very slightly longer than third, fifth not extending beyond first. Tail nearly twice as long as head and body, slightly compressed, keeled and serrated above, covered with strongly keeled scales which are larger than those on the body. A series of praeanal pores. Yellowish olive; throat greyish, gular fold orange; a round black blotch on each side of the neck in front of the shoulder.

Tota	l len	gtl	1					355	millim.
Head	ι.							28	>
Widt	h of	h	ead					23	3
Body						•		-92	Þ
Fore	limb	•		•	•			52	з
Hind	limb)						75	
Tail								235	75

A single male specimen was obtained at Lugh by Capt. Ferrandi.

This species is nearest allied to A. mossambica, Ptrs., from which it differs in the larger scales and the larger spines about the ear and neck.

11. Agama colonorum, Daud. — Between Sancurar and Amarr.

12. Agama atricollis, Smith. - Between Sancurar and Amarr.

13. Agamodon anguliceps, Ptrs. - Lugh.

14. Latastia longicaudata, Reuss. -- Lugh.

Two male specimens. Scales round the body: 64, 61; femoral pores: 7-7, 7-8.

15. Eremias sextaeniata, Stejn. — Lugh; between Sancurar and Amarr; between Dimè and L. Rudolf.

16. Eremias striata, Ptrs. - Lugh.

17. Mabuia varia, Ptrs. - Between Sancurar and Amarr.

48. Mabuia megalura, Ptrs. — Between Badditù and Dimè; between Sancurar and Amarr.

19. Mabuia hildebrandtii, Ptrs. - Lugh.

20. Lygosoma laeviceps, Ptrs. - Lugh.

26 scales round the body; supranasal completely separated from the nasal.

21. Lygosoma ferrandii, sp. n. (Pl. IX, fig. 2). - Body much elongate; limbs weak; the distance between the end of the snout and the fore limb is contained twice to twice and two fifths in the distance between axilla and groin. Lower eyelid scaly. Snout much depressed, slightly prominent, subcuneiform; no canthus rostralis. Nostril between two nasals and a large supranasal, which forms a suture with its fellow behind the rostral; frontonasal nearly twice as broad as long, forming a broad suture with the frontal; praefrontals small, widely separated; frontal as long as its distance from the posterior border of the parietals, in contact with the first and second supraoculars; four supraoculars; seven supraciliaries; frontoparietals and interparietal distinct; parietals forming a suture behind the interparietal; no enlarged nuchals; fourth and fifth labials below the eye, fourth largest. Ear-opening very small, oval, oblique, with a small projecting lobule. 26 smooth, equal scales round the middle of the body. Praeanals not enlarged. The fore limb, stretched forwards, hardly reaches the ear; the length of the hind limb is contained twice and one third to twice and a half in the distance between axilla and groin; fingers short; toes slender, fourth much longer than third; 15 lamellae under the fourth toe. Tail thick, shorter than head and body. Yellowish or pale brown above, with small dark brown spots and a more or less distinct dark lateral stripe extending from the end of the snout to the base of the tail; the

dorsal spots may be replaced by a pair of dark lines running from between the eyes to the base of the tail; upper lip and lower parts white.

Total length .				123	millim.
Head				11	ъ
Width of head				7	ø
Body				58	>
Fore limb .				9	ъ
Hind limb .				17	×
Tail				54	ъ

Three specimens from Lugh, collected by Capt. Ferrandi.

This species is very closely allied to L. *laeviceps*, Ptrs. (= modestum, Gthr.), from which it is distinguished by a still more depressed snout and more slender toes showing a greater disproportion in length between the third and fourth.

22. Ablepharus boutonii, Desj. - Lugh.

Several specimens. These are referable to the var. *peronii*, Coct., from the coloration and the number of scales (22) round the body. But one specimen has, on one side, three labials anterior to the subocular, as in the var. *cognatus*, Bttgr., whilst another has the interparietal distinct from the frontoparietal, as in A. *egeriae*, Blgr.

23. Ablepharus wahlbergii, Smith. — Between Sancurar and Amarr.

24. Chalcides ocellatus, Forsk. - Lugh.

Three specimens of the typical form, with 28 scales round the body. In two of the specimens the spots have invaded the upper surfaces in such a manner as to make them appear black, dotted over with white; labial shields black, each with a white spot; sides of throat much spotted with black.

25. Chalcides bottegi, sp. n. (Pl. X, fig. 1). — Form and scaling as in *C. ocellatus*, but body more slender, more elongate, the distance between end of snout and fore limb being contained nearly three times in that between axilla and groin. Nostril pierced in advance of the suture between the rostral and the first labial; fifth labial entering the orbit. 24 scales round the body, the scales of the two dorsal series much enlarged, more than twice as broad as

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long. Body covered with black-and-white ocelli as in *C. ocellatus;* a dark brown dorsal stripe (occupying the two median rows of scales) separated from a blackish lateral stripe by a broad pale grey stripe; lips with black vertical bars; lower parts white.

Total length			•	222	millin
Head				16	
Width of head .				12	>
Body				109	Þ
Fore limb				18	>
Hind limb				25	
Tail (reproduced)				-97	2

A single specimen obtained between Sancurar and Amarr.

The discovery of this form is, to my mind, of very great interest as again lessening the narrow gap separating C. bedriagae from C. ocellatus, and thus assisting to complete the almost unbroken chain of forms presented by the remarkable genus Chalcides. C. bottegi differs from C. bedriagae in the strongly enlarged vertebral scales and the presence of four anterior upper labials instead of three as usual in that species.

Rhiptoglossa.

26. Chamaeleon dilepis, Leach. --- Lugh.

27. Chamaeleon bitaeniatus, Fisch. -- Between Badditù and Dimè; between Sancurar and Amarr.

Ophidia.

28. Typhlops cuneirostris, Ptrs. — Lugh.

29. Typhlops blanfordii, Blgr. - Between Badditù and Dimè.

30. Typhlops unitaeniatus, Ptrs. — Lugh.

Yellow vertebral stripe five scales wide.

31. Eryx thebaicus, Reuss. - Between Badditù and Dimé.

32. Bocdon lineatus, D. & B. -- Between Sancurar and Amarr.

33. Philothamnus semivariegatus, Smith. — Lugh; between Dimè and L. Rudolf.

34. Dasypeltis scabra, L. -- Lugh.

35. Tarbophis obtusus, Reuss. - Lugh.

36. Amplorhinus nototaenia, Gthr. — Between Sancurar and Amarr.

37. Rhamphiophis oxyrhynchus, Rhdt. - Lugh.

38. Psammophis punctulatus, D. & B. - Lugh.

39. Psanimophis biseriatus, Ptrs. - Lugh.

40. Dispholidus typus, Smith. - Between Badditù and Dimè.

41. Aparallactus jacksonii, Gthr. — Between Dimè and L. Rudolf.

42. Naia nigricollis, var. pallida, Blgr. — Lugh; between Badditù and Dimè.

25 to 31 scales across the neck, 23 to 27 across the body.

43. Causus rhombeatus, Licht. --- Between Sancurar and Amarr; between Badditù and Dimè.

44. Bitis arietans, Merr. — Between Sancurar and Amarr; between Badditù and Dimè.

45. Atractaspis microlepidota, Gthr. - Lugh.

BATRACHIA.

Ecaudata.

1. Rana delalandii, D. & B. - Lugh.

2. Rana mascareniensis, D. & B. -- Lugh; between Badditù and Dimè.

3. Rappia viridiflava, D. & B. — Between Badditù and Dimè. Snout short, truncate; tympanum hidden. Fingers barely one fourth webbed; toes nearly entirely webbed. The tibio-tarsal articulation reaches the anterior border of the orbit. Green above, with small, round, orange spots; sides of head and body with scattered brick-red dots; thighs and lower parts yellow, throat with a few red dots. From snout to vent 32 millim.

4. Rappia cinctiventris, Cope. — Between Badditù and Dimè; L. Rudolf.

5. Megalixalus gramineus, sp. n. (Pl. X, fig. 2). — Tongue cordiform. Snout rounded, as long as the diameter of the orbit;

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tympanum very distinct, measuring half the diameter of the eye. Fingers free, toes webbed at the base; terminal disks small; inner metatarsal tubercle rather large, oval. The tibio-tarsal articulation reaches the shoulder or the tympanum. Skin smooth above; throat and belly coarsely granular. Bright green above; a dark brown streak along the canthus rostralis; tympanum brown; a dark brown lateral stripe, or several large spots on the flanks, one of which may ascend to form a lumbar marking as in *Hyla arborea*; hinder side of thighs brown; lower parts white. One specimen greyish above with three darker stripes on the back in addition to the blackish-brown lateral stripe.

From snout to vent 40 millim.

Several specimens from between Badditù and Dimé.

6. Hylambates vannutellii, sp. n. (Pl. X, fig. 3). — Closely allied to *H. aubryi*, A. Dum. with which it agrees in the vomerine dentition, the extent of the web between the fingers and toes, the size of the digital disks and the proportion of the hind limb, but differing in the less developed inner metatarsal tubercle, which is oval, not compressed, and about two thirds the length of the inner toe. Upper parts with scattered small round warts; throat, belly, and lower surface of thighs granular. Olive grey above, with a few large dark spots and marblings on the body, and cross bars on the limbs; a white line from the tip of the snout, along the canthus rostralis, to the border of the upper eyelid; a white cross-line above the vent and another at the heel: lower parts white, with small dark brown spots.

From snout to vent 45 millim.

A single female specimen from between Badditù and Dimè.

7. Bufo steindachneri, Pfeffer. - Between Badditù and Dimè.

8. Bufo regularis, Reuss. — Lugh: between Badditù and Dimè; between Sancurar and Amarr.

9. Bufo taitanus, Ptrs. - Lugh; between Sancurar and Amarr.

EXPLANATION OF THE PLATES

Plate IX.

Fig. 1. Agama bottegi. Upper view of head and anterior part of body.

- » 1 a. — Side view of head.
- » 2. Lygosoma ferrandii. Adult and young.
- » 2a. Upper view of head, $\times 2$.
- " 2b. Side view of head, $\times 2$.

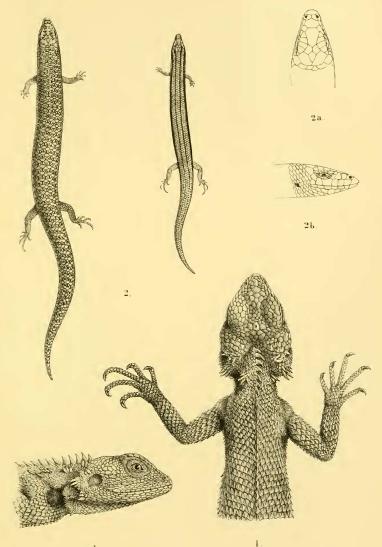
Plate X.

Fig. 1. Chalcides bottegi.

- » 1 a. — Side view of head, $\times 2$.
- » 2. Megalixalus gramineus.
- » 3. Hylambates vannutellii.

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Tav.IX.



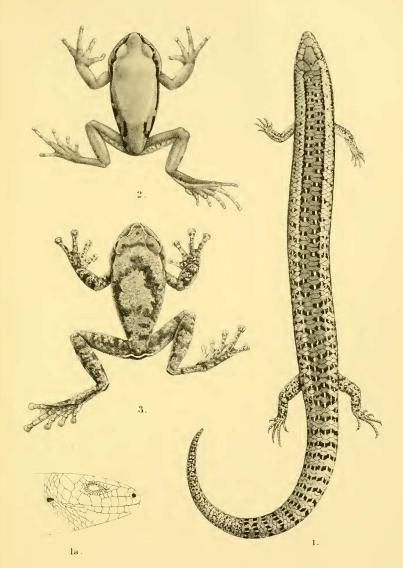
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J.Green del .et lith.

Mintern Bros. imp . London .

1. Agama bottegi . 2. Lvgoscma ferrandii .

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1.Chalcides bettegi . 2.Megalixalus gramineus.3.Hylambates vannutellii .

Tav.X.